## DO-IT-YOURSELF WELLS

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## DO-IT-YOURSELF WATER WELLS

Saving money is something many of us try to accomplish with varying degrees of success. Many times you can achieve this goal by tackling a project yourself, such as installing a garage door opener or painting the house. However there are some tasks best left to the professionals because of the complexities of using specialized equipment and because of the risks involved. Constructing water wells, for example, is one of these undertakings. A badly constructed well is not only a direct potential health risk but there is also the risk that it may create a downward pathway that allows contaminants to reach the aquifer and threaten water quality in the surrounding community. In some states, and local jurisdictions it is ILLEGAL to construct any kind of well without first obtaining a permit.

Jetting of narrow diameter wells in areas of sandy soils and shallow water tables is sometimes feasible by informed do-it-yourselfers, but unless you really know what you are doing, hiring a well contractor is the best option.

A drilled water well is an engineered hole in the ground. The machines that contractors use for drilling (typically costing 250 to 500 thousand dollars) are specially designed to penetrate through soil and rock layers. Most domestic water wells are drilled to a depth of a hundred feet or more. There are three reasons for drilling d eep beneath the surface:

- First, to find water bearing fractures or saturated sediments,
- Second, to minimize the chance of contamination from surface pollutants and pathogens,
- Third, the drilled well provides water storage (1½ gallons per foot in a six-inch diameter well).

To provide protection for the underlying aquifers, many states have very specific regulations for the construction and location of wells. These regulations may include requirements about the depth of well casing and the composition of the "seal" that has to be placed between the drilled hole and the casing.

Before the existence of drilling equipment, many people relied on shallow "dug" wells and springs as a water supply. Today we know these sources of water are very susceptible to contamination from pathogens and pollutants (especially from bacteria and nitrates) and prone to "drying up" in times of drought.

The cost of drilling a well should be looked at as a worthwhile investment that will provide you with many years of safe dependable water. A properly constructed well also increases the value of your property. The public is becoming more aware of the value of a safe, dependable water supply. Lending institutions are becoming stricter about conducting a thorough home inspection before granting mortgages to homebuyers. If your home has an improperly constructed well, you may find the property very difficult to sell.

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